**U.S. Department of the Interior**
**Bureau of Land Management**
**White River Field Office**
**73544 Hwy 64**
**Meeker, CO 81641**

# ENVIRONMENTAL ASSESSMENT

**NUMBER**: CO-110-2004-157-EA

**CASEFILE/PROJECT NUMBER** (optional): EA82

**PROJECT NAME**: Yahoo Prescribed Fire (American Soda Wildlife Mitigation)

**LEGAL DESCRIPTION**: T1N R98W Sections 2,3,10,11,14,15

**APPLICANT**: DOI, Bureau of Land Management, White River Field Office

**ISSUES AND CONCERNS** (optional):

**DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES**:

***Background/Introduction***: In 1999 the Colorado Division of Wildlife (CDOW) and the Bureau of Land Management (BLM) determined that reclamation of disturbed areas following mining operations at the American Soda, L.L.P. (American Soda) Yankee Gulch Sodium Minerals Project (Yankee Gulch Project) Piceance Site would not adequately mitigate for impacts to mule deer and mule deer habitat that would occur during the life of the project. This concern is based on the fact that the Piceance site lies within critical mule deer winter range and on the assumption that any loss of habitat will result in negative impacts to wintering deer. Therefore, there is a need to compensate for potential impacts to wintering mule deer, including habitat losses and potential displacement of mule deer from wintering habitat, throughout the life of the project. Consequently, American Soda agreed to implement a habitat mitigation program that will minimize both direct and indirect impacts to deer from habitat loss and will increase forage and cover away from active mining operations. (American Soda Wildlife Mitigation Plan)

As mitigation for potential impacts to wintering mule deer throughout the proposed 30-year life of the project, American Soda has developed an off-site habitat improvement program in consultation with the BLM and the CDOW that will increase forage and cover in areas away from active mining operations. These areas will be particularly important in providing mule deer late winter/early spring habitat during the years prior to full reclamation of the Piceance site mining panels. As interpreted in the Wildlife Mitigation Plan "off-site" may mean 1) within the Piceance site boundary but outside the six mining panels to be developed throughout the life of the mine, 2) on BLM property outside the Piceance site, or 3) off BLM lands, e.g., on CDOW property or other lands. (American Soda Wildlife Mitigation Plan)

To date American Soda has disturbed approximately 80 acres in mule deer severe winter range habitat. The wildlife mitigation plan states that 2.5 acres of off-site habitat improvement will be implemented to compensate for every one acre of direct and indirect impacts at a cost not to exceed $100 per acre. Based on this multiplier American Soda has made $20,000 in mitigation funding available to the BLM to conduct mule deer habitat improvement in an unnamed drainage between Barcus Creek and Yellow Creek (see attached map) from this point forward to be known as the Yahoo prescribed burn.

**Proposed Action**: Broadcast burning will be used to reduce the fuel loading and canopy cover of Basin Big Sagebrush and Wyoming Big Sagebrush totaling 300 acres. This will effectively change the vegetation from dense sagebrush community with low perennial understory density and diversity and low browse potential to a more diverse grass and forb community. This treatment would result in an increase in mule deer forage opportunities within close proximity of thermal cover on mule deer winter and early spring ranges and results in a lower intensity wildfire in the event one should occur as compared to the current condition.

Holding operations in conjunction with prescribed fire may include brushing out and wet lining, black lining, and off road fire engine and reclamation harrowing operations. . Any new routes established during burning or holding operations will be closed off after project completion to prevent the establishment of new roads.

The target area consists of the unnamed draw bottom be burned subject to the resource objectives listed in the resource management objectives section below. The allowable area is the surrounding area where burning is not planned. Fire may be allowed in this area, under specific criteria, without being declared a wildfire. Black lining will be conducted around the perimeter of the target areas and around any interior islands in order to reduce the chance of fire burning outside the target area. In the event that fire should spread from the target area and threaten mature pinyon/juniper stands (see map), the burn boss, holding specialist, and resource advisor will determine if suppression actions are warranted. Further criteria may be identified by the prescribed fire plan.

All prescribed fire will be conducted in accordance with the State of Colorado Smoke Management Plan (CSMP) and Memorandum of Understanding (MOU), and will be regulated under Colorado Department of Public Health and Environment, Air Pollution Control Division, approved open burning permits, which must be issued in advance of the fire. Simple Approach Smoke Estimation Model (SASEM, 1991) air pollutant dispersion predictions will be completed for all prescribed burn plans and reviewed by the State.

***Treatment Area Description and Resource Management Objectives:*** This 300 acre prescribed fire project would be located approximately 40 miles west of Meeker Colorado, in an unnamed draw between Barcus Creek and Yellow Creek. The unit is approximately 50% Basin Big Sagebrush and 50% Wyoming Sagebrush with a substantial cheatgrass infestation and a low diversity of perennial grasses and forbs. The objective for this treatment is to treat 60-90% of the vegetation within the unit while also achieving some soft edge effect burning of the adjacent mature pinyon/juniper stands on the periphery of the unit. Holding at the mouth of the draw will be done by brushing out enough canopy of sage to prevent fire from spreading outside the target

draw and if necessary wet lining to assist in this action. Some hand line construction may be needed to facilitate holding operations in the event of an escape. Completion of this project will provide greater foraging opportunities within mule deer severe winter range, will achieve mitigation measures outlined in the American Soda Wildlife Mitigation Plan, and provide a fuel reduction in a sagebrush bottom that connects large stands of mature Pinyon/Juniper which will help prevent large scale involvement of mature PJ in a wildfire event. (See attached map).

The objective for this treatment is to limit mortality of perennial bunch grasses to 10-15% and kill 75-90% of both Basin Big Sagebrush and Wyoming Sagebrush. Total acreage consumed by fire should be limited to 60 – 90% of the targeted area to create mosaic and edge effects for improved wildlife habitat. After completion of burning the treatment area may be seeded utilizing a rangeland drill or aerially seeded and subsequently harrowed with a bulldozer at a rate of 12 pounds per acre with the species listed in table one. This will be essential to inhibit cheatgrass establishment and eventual domination of the site and to restore desirable perennial grass and forb species on a site that currently lacks a good diversity of desirable plants. To insure plant recovery/establishment the treated areas will be rested from livestock grazing for two growing seasons.

***Mitigation:***

1) All prescribed burning operations will have a burn plan prepared and approved prior to ignition. A Colorado State Smoke permit will also be approved and included in the burn plan, prior to any ignitions on this project.

2) Establish a permanent Daubenmire canopy cover transect to monitor vegetation response.

3) Manage wild horses in this portion of the HMA at the prescribed AML for this unit of the HMA in order to maximize the success of this revegetation project.

4) A temporary poly electric fence approximately 3/8 mile in length will be erected from Point to point across the mouth of the draw to prevent cattle access into the treatment unit from Yellow Creek for two growing seasons.

5) Place signage along BLM road 1101 identifying that a prescribed fire is in progress.

6) All areas will be seeded with the following seed mix:

Table 1

| Species (variety) | Pounds/acre on pure live seed (pls) basis |
|---|---|
| Basin wildrye (Magnar) | 2 |
| Western wheatgrass (Rosanna) | 2 |
| Bluebunch wheatgrass (Secar) | 2 |
| Thickspike wheatgrass (Critana) | 2 |
| Orchardgrass (Paiute) | 1 |
| Alfalfa (Travois) | 3 |

**No Action Alternative:** Under this alternative no wildlife mitigation will take place as directed in the American Soda Wildlife Mitigation Plan. Also, due to increased development within mule deer winter range, there would be a continued need to develop more quality winter foraging areas. In conjunction a requirement in the White River Fire Management Plan would not be met, by not conducting prescribed burns to break up continuous fuels to prevent large scale involvement of mature pinyon/juniper stands.

**ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD**:

***Chemical Treatment*:** Using herbicides to kill woody vegetation was considered but eliminated from further analysis because the dead plant material would inhibit reestablishing desirable perennial grasses and forbs which could be utilized by mule deer, and would still present a hazardous, yet reduced, fuel situation. Additionally, selective chemical treatment is problematic and results are visually unappealing.

**NEED FOR THE ACTION**: This action will address specific actions addressed in the mitigation plan developed for American Soda in close consultation with BLM and CDOW to mitigate the impacts of industrial development within mule deer severe winter range. This project will also increase forage and cover in areas away from active mining operations and will help insure long term viability of the mule deer population within the Piceance Creek watershed.

In accordance with the National Fire Plan of 1999, public land agencies are directed to take actions to reduce hazardous fuels, especially in those areas where communities and human development are at risk from wildfire. The White River Fire Management Plan, which was developed as a required action in the White River Resource Management Plan, identifies areas where hazardous fuel reduction take place to protect, maintain and enhance ecosystems, economic values, and multiple resource management programs. The proposed action was developed to comply with these three plans.

**PLAN CONFORMANCE REVIEW**: The Proposed Action is subject to and has been reviewed for conformance with the following plan (43 CFR 1610.5, BLM 1617.3):

Name of Plan: White River Record of Decision and Approved Resource Management Plan (ROD/RMP).

Date Approved: July 1, 1997

Decision Number/Page: 2-26 & 2-55, 2-22

Decision Language: "Ensure that big game habitats provide components and conditions necessary to sustain big game populations at levels commensurate with multiple use objectives and state established population objectives."

"Maintain or enhance a healthy rangeland vegetative composition and species diversity, capable of supplying forage at a sustained yield to meet the demand of livestock grazing.

"Manage fire to protect public health, safety, and property as well as allowing fire to carry out important ecological functions." "Utilize prescribed fire, both natural and management ignited, to protect, maintain and enhance ecosystems, economic values, and multiple use resource management programs."

## AFFECTED ENVIRONMENT / ENVIRONMENTAL CONSEQUENCES / MITIGATION MEASURES:

**STANDARDS FOR PUBLIC LAND HEALTH**: In January 1997, Colorado Bureau of Land Management (BLM) approved the Standards for Public Land Health. These standards cover upland soils, riparian systems, plant and animal communities, threatened and endangered species, and water quality. Standards describe conditions needed to sustain public land health and relate to all uses of the public lands. Because a standard exists for these five categories, a finding must be made for each of them in an environmental analysis. These findings are located in specific elements listed below:

## CRITICAL ELEMENTS

### AIR QUALITY

*Affected Environment*: Air quality is not currently being monitored in the project area, however it is considered to be within the national and Colorado air quality standards. There are two class 1 (visibility) areas located in northwest Colorado including the Mt. Zirkel Wilderness 120 miles to the northeast and the Flat Tops Wilderness 70 miles to the east.

*Environmental Consequences of the Proposed Action:* Both prescribed and wildland fires are potentially a significant source of air pollution emissions including particulate matter, volatile organic compounds, and carbon monoxide.

Under the proposed action, all fire activities will be conducted within existing laws that protect air quality. Specifically, all fire activities must comply with the applicable air quality regulations required by FLPMA, the Clean Air Act, and the Colorado Air Quality Commission. By complying with applicable air quality standards and regulations, impacts to air quality will be short term and considered acceptable.

Prescribed fires are typically smaller than uncontrolled wildfires occurring during peak burning conditions and typically involve less total combustion than wildfires as a result of the more mesic conditions under which prescribed fires are conducted. This results in less over all smoke production. Also, prescribed fires are conducted under atmospheric conditions that will promote air pollutant dispersion.

*Environmental Consequences of the No Action Alternative:* The direct environmental consequences associated from this project will obviously be absent in the no action alternative. However, greater long term consequences could occur as a result of increasing potential for large scale uncontrolled wildfires. Uncontrolled wildfires tend to produce more smoke as a result of more fuel consumption, their larger size, and longer burning duration. A large wildfire in this area has the potential to impact the two class 1 designated areas.

*Mitigation*: None

**CULTURAL RESOURCES**

*Affected Environment*: No new ground disturbance is anticipated for this project which poses no threat to cultural resources. Further, research conducted in the Piceance basin indicates that prehistoric resources are virtually unknown in these small drainage bottoms. There are no known historic resources located in the proposed burn area.

*Environmental Consequences of the Proposed Action:* It is unlikely cultural resources will be affected by the proposed prescribed burn.

*Environmental Consequences of the No Action Alternative:* There would be no new impacts to cultural resources under the No Action Alternative.

*Mitigation*: 1. The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:

- whether the materials appear eligible for the National Register of Historic Places
- the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary)
- a timeframe for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

2. Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the AO, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.

**INVASIVE, NON-NATIVE SPECIES:**

*Affected Environment*: The invasive annual cheatgrass (*Bromus tectorum*) is present throughout the treatment area, but is most prominent at the lower end of the drainage due to past grazing pressure. There are no known noxious weeds in the project area.

*Environmental Consequences of the Proposed Action:* Revegetation as planned with applied mitigation should preempt establishment and proliferation of cheatgrass in the project area and over the long term provide a stable, more resilient plant community.

*Environmental Consequences of the No Action Alternative:* There will be no change from the present situation which is a marginally productive vegetation community which is frozen in time.

*Mitigation*: No additional mitigation other than what is already addressed in the proposed action is recommended.

**MIGRATORY BIRDS**

*Affected Environment*: A number of migratory birds fulfill nesting functions in the project area's basin big sagebrush bottomlands during the months of May, June, and July. The more common species associated with these shrubland communities are typical and widely represented in the Resource Area and region (e.g., blue-gray gnatcatcher, spotted towhee). Although few species associated with this community are identified as having higher conservation interest by the Rocky Mountain Bird Observatory/Partners in Flight program (i.e., gray flycatcher, green-tailed towhee), these birds are well distributed throughout Piceance Basin and northwest Colorado in extensive suitable habitats.

*Environmental Consequences of the Proposed Action:* This project would be conducted in the fall of 2004, well outside the migratory bird nesting season. Activity associated with the proposed action would have no influence on migratory bird nesting activities.

*Environmental Consequences of the No Action Alternative:* Failing to implement the project would have no influence on migratory bird nesting activity.

*Mitigation*: None.

**THREATENED, ENDANGERED, AND SENSITIVE ANIMAL SPECIES** (includes a finding on Standard 4)

*Affected Environment*: There are no animals known to inhabit or derive important benefit from the project area that are listed, proposed, or petitioned under the Endangered Species Act. The only BLM sensitive species that has potential to be influenced is the northern leopard frog that occupies downstream portions of Yellow Creek.

*Environmental Consequences of the Proposed Action:* The proposed action would have no conceivable influence on Threatened and Endangered animals.

Prior to spring regrowth, post-burn conditions may temporarily increase sediment yields to Yellow Creek, although sediment discharge is not expected to be substantially higher than levels that are currently attributed to the project area's depauperate bottomland understories and barren ephemeral channels. Yellow Creek, the second largest perennial stream in Piceance Basin and largely in proper functioning condition, carries high spring flows and broad heavily vegetated floodplains capable of accommodating and incorporating these discharges. It is unlikely that this burn project would prompt sediment imbalances that would adversely alter channel characteristics to the detriment of its amphibian or aquatic invertebrate populations.

*Environmental Consequences of the No Action Alternative:* The no-action alternative would have no conceivable influence on special status animals.

*Mitigation*: None

*Finding on the Public Land Health Standard for Threatened & Endangered species*: The proposed and no action alternatives would have no effective influence on populations or habitat associated with special status species and would be consistent with the long term maintenance of animal and plant land health standards.

**THREATENED, ENDANGERED, AND SENSITIVE PLANT SPECIES** (includes a finding on Standard 4)

*Affected Environment*: No Threatened or Endangered plant species are present in the vicinity of, or will be affected by the proposed action.

*Environmental Consequences of the Proposed Action:* None

*Environmental Consequences of the No Action Alternative:* None

*Mitigation*: None

*Finding on the Public Land Health Standard for Threatened & Endangered species*: There is no reasonable likelihood that the proposed action or no action alternative would have an

influence on the condition or function of Threatened, Endangered, or Sensitive plant species. Thus there would be no effect on achieving the land health standard.

**WASTES, HAZARDOUS OR SOLID**

*Affected Environment*: Hazardous or solid wastes are not expected to be a part of the affected environment. However, these materials my accidentally be introduced in the environment through the implementation of the proposed action. Fuel, oil, grease, and antifreeze are all associated with vehicles and fire suppression equipment associated with implementing the proposed action and would only be introduced into the environment because of equipment failure. Minute loss of these materials through normal operation of equipment, maintenance and fueling procedures are not considered spills. Spills are generally defined as the loss of large quantities of these materials into the environment and are determined to be a spill on a case-by-case basis.

*Environmental Consequences of the Proposed Action:* For any given accident or incident involving hazardous materials, consequences will be dependent on the volume and nature of the incident and material released. Short term impacts such as contaminations of soils, vegetation, and surface water could occur.

*Environmental Consequences of the No Action Alternative:* No hazardous wastes would be introduced into the environment under the no action alternative.

*Mitigation*: No additional mitigation needed.

**WATER QUALITY, SURFACE AND GROUND** (includes a finding on Standard 5)

*Affected Environment*: The proposed action is in the Yellow Creek, watershed which is tributary to the White River. A review of the Colorado's 1989 Nonpoint Source Assessment Report (plus updates), the 305(b) report, the 303(d) list and the Unified Watershed Assessment was done to see if any water quality concerns have been identified. All actions are within the White River watershed.

The State has designated this segment as "Use Protected". They further classified this stream segment as Warm Aquatic Life 2, Recreation 2, and Agriculture. The state has further defined water quality parameters with table values. These standards reflect the ambient water quality and define maximum allowable concentrations for the various water quality parameters. The anti-degradation rule does not apply to segments that are considered to be use protected. For these drainages, on the parameters listed in the table apply.

*Environmental Consequences of the Proposed Action:* With the state set water quality criteria, any improvement to watershed conditions (i.e., reseeding to improve vegetation cover) would be beneficial to the watershed by helping to maintain the necessary water quality the state has established.

*Environmental Consequences of the No Action Alternative:* By not improving the vegetation cover, the watershed would begin to experience degradation from sheet and rill erosion.

*Mitigation*: None

*Finding on the Public Land Health Standard for water quality*: Currently the upland watershed meets the land health standard and would continue to do so with the implementation of the proposed action.

**WETLANDS AND RIPARIAN ZONES** (includes a finding on Standard 2)

*Affected Environment*: There are no riparian or wetland resources within the project area. The project area, however, drains directly into the middle reaches of Yellow Creek, the second largest channel system in Piceance Basin. Over the last 15 years, improved livestock management along Yellow Creek has restored much of this channel to a sedge-rush community in proper functioning condition.

*Environmental Consequences of the Proposed Action:* Prior to spring regrowth, post-burn conditions may temporarily increase sediment yields to Yellow Creek, although sediment discharge is not expected to be substantially higher than levels that are currently attributed to the project area's depauperate bottomland understories and barren ephemeral channels. Yellow Creek, largely in proper functioning condition, carries high spring flows and broad heavily vegetated floodplains capable of accommodating and incorporating these discharges. By the end of the 2005 growing season, it is expected that supplemental seeding and redevelopment of existing perennial herbaceous cover in the project drainage would prompt marked increases in erosion-resistant ground cover, thereby decreasing long-term sediment discharge to Yellow Creek.

*Environmental Consequences of the No Action Alternative:* Current sediment discharge rates to Yellow Creek from the project drainage would persist in the long term. Rehabilitation efforts designed to increase big game forage availability as well as enhance soil retention and water infiltration properties within this Yellow Creek tributary would be foregone.

*Mitigation*: Reclamation practices are integral with the proposed action.

*Finding on the Public Land Health Standard for riparian systems*: The portion of Yellow Creek subtending the project area is sedge/rush dominated and, with few localized exceptions, in proper functioning condition. This project may temporarily increase sediment yields to Yellow Creek, but these discharges are not expected to be markedly higher than current levels. Strong riparian expressions on Yellow Creek's broad floodplains are considered fully capable of capturing and rapidly incorporating sediment during the first spring runoff. After this period, sediment discharge is expected to decline from current levels. By promoting long term

reductions in upland soil loss and sediment discharge to downstream perennial streams, this project is consistent with continued meeting of the land health standards.

**CRITICAL ELEMENTS NOT PRESENT OR NOT AFFECTED**:

No ACEC's, flood plains, prime and unique farmlands, Wilderness, or Wild and Scenic Rivers, threatened, endangered or sensitive plants exist within the area affected by the proposed action. For threatened, endangered and sensitive plant species Public Land Health Standard is not applicable since neither the proposed nor the no-action alternative would have any influence on populations of, or habitats potentially occupied by, special status plants. There are also no Native American religious or environmental justice concerns associated with the proposed action.

**NON-CRITICAL ELEMENTS**

The following elements **must** be addressed due to the involvement of Standards for Public Land Health:

**SOILS** (includes a finding on Standard 1)

*Affected Environment*: Soils in the proposed treatment are in the Glendive fine sandy loam map unit. Included within this unit are also Barcus channery loamy sands. These soils are moderately deep, well drained to excessively drained, and moderately susceptible to erosion. They also tend to be droughty, principally a function of there inherently low capacity to hold water.

*Environmental Consequences of the Proposed Action:* The proposed treatment with applied mitigation would enhance soils by increasing vegetation cover and production, thereby increasing our capability to meet the soil standard in the future.

*Environmental Consequences of the No Action Alternative:* There will be no change in the present situation.

*Mitigation*: None

*Finding on the Public Land Health Standard for upland soils*: Soils in the project are currently marginally meeting the standard; with the application of the proposed action this will help the upland soils to meet the standard.

**VEGETATION** (includes a finding on Standard 3)

*Affected Environment*: The treatment area is presently dominated by basin big sagebrush with a sparse understory of perennial grasses close to Yellow Creek. This community transitions

going up the drainage into a mixed basin big sagebrush/Wyoming big sagebrush community and, at the uppermost part of the drainage, is primarily a Wyoming big sagebrush/grass community. The ecological site is Foothill swale and in general it is in an early seral stage due to the big sagebrush density and the presence of the invasive alien, cheatgrass.

*Environmental Consequences of the Proposed Action:* The proposed treatment will change the present plant composition on site from one that is essentially frozen in time, to a more productive vegetation community.

*Environmental Consequences of the No Action Alternative:* There will be no change from the present situation.

*Mitigation*: Establish a permanent Daubenmire canopy cover transect to monitor vegetation response.

*Finding on the Public Land Health Standard for plant and animal communities* (partial, see also Wildlife, Aquatic and Wildlife, Terrestrial)*:* The proposed treatment will change the present plant composition on site from one that is essentially frozen in time and does not meet or marginally meets the Standard, to a vegetation community that meets or exceeds the Standard.

**WILDLIFE, AQUATIC** (includes a finding on Standard 3)

*Affected Environment*: see Riparian/Wetland and Threatened and Endangered Animal sections

*Environmental Consequences of the Proposed Action:* see Riparian/Wetland and Threatened and Endangered Animal sections

*Environmental Consequences of the No Action Alternative:* see Riparian/Wetland and Threatened and Endangered Animal sections

*Mitigation*: none

*Finding on the Public Land Health Standard for plant and animal communities* (partial, see also Vegetation and Wildlife, Terrestrial): see Riparian/Wetland and Threatened and Endangered Animal sections

**WILDLIFE, TERRESTRIAL** (includes a finding on Standard 3)

*Affected Environment*: The project area is associated with deer severe winter ranges that are occupied primarily during the later fall through midwinter months and again during the early to middle spring period. Its most important potential lies in providing an abundant and nutritious herbaceous forage base for deer recovering from the nutritional deficits of winter and acquiring a higher nutritional plane for the last trimester of gestation. Current big game forage

opportunity in this drainage is limited by the nature and condition of vegetation communities. Predominant woody shrub growth (basin big sagebrush) possesses no big game forage value and sparse understories provide little herbaceous production in the spring. The upper quarter of the drainage supports a mixed sagebrush/snowberry type with a well developed perennial grass/forb understory, but these resources are largely unavailable during occupation (i.e., snow accumulation or later emergence) or quickly negotiated during spring movements. Cheatgrass is well distributed, but sparse beneath these shrubland canopies. Although cheatgrass is readily consumed by deer in the early spring months, its monotypic, ephemeral character is antithetical with efforts to enhance the diversity, persistence, and availability of quality herbaceous forage and cover for all wildlife use and ground cover resistant to erosion. Native grass cover has quickly redeveloped on recent wildfires in the upper quarter of these drainages.
There are no cliffs suitable for raptor nesting in the project area. Surrounding pinyon-juniper woodlands likely sustain woodland raptor nest activity, including Cooper's and sharp-shinned hawk. Due to the nature of this project (no intended involvement of woodland canopy), raptor inventories were not required. Nesting records for potentially affected raptors indicate that nest attempts (initiated as early as March) are largely (85%) complete and young fledged by early August.

Small mammal populations are poorly documented; however, the 6 or so species that are likely to occur in these bottomlands are widely distributed throughout the Resource Area, northwest Colorado and the Great Basin region. Although poorly developed understories in the lower half of these drainages likely suppress the abundance of most species and perhaps the presence of those species that prefer shrubland with well-developed understories (e.g., voles), all resident species are widely distributed and display broad ecological tolerance. No narrowly distributed or highly specialized species or subspecific populations are known to occur in the project area.

*Environmental Consequences of the Proposed Action:* The proposed action is specifically intended to increase the availability, variety, and nutritional quality of herbaceous forage for use by deer in the spring months. Incremental gains in the nutritional status of deer at this time of year would manifest itself in increased fawn survival and recruitment, thereby helping to maintain population characteristics necessary to achieve Colorado Division of Wildlife's big game herd objectives. Project activity in October or November would occur during the period of big game occupation, but this localized disturbance would be short term with no expected adverse consequences on big game distribution or energy budgets. Removal of existing sagebrush canopies does not represent a reduction in the winter forage base.

Project implementation would have no potential influence on raptor nesting activity in surrounding woodlands. Modifying the adjacent bottomlands would have virtually no influence on the character or utility of adjacent nest territories.

Supplemental seeding should markedly enhance herbaceous expression in the lower end of these bottomlands, thereby enhancing the forage (seed and herbage production) and cover (increased density and residual ground cover) properties for resident nongame birds and mammals and likely allowing for increases both in abundance and distribution as shrub canopies redevelop.

*Environmental Consequences of the No Action Alternative:* The project area would continue to provide a limited spring forage base for big game, well below its productive potential and insignificant with respect to the abundance and distribution of cheatgrass on these ranges. An opportunity to reestablish well-developed herbaceous understories on the lower half of these drainages, both as a forage and cover base for wildlife and as a means to stabilize ephemeral channel beds and, in a long term sequence, aggrading incised channels, reestablishing proper alluvial storage, and extending soil moisture availability for enhanced herbaceous growth, would be foregone.

*Mitigation*: Supplemental seeding with native forms is integral with the proposed action.

*Finding on the Public Land Health Standard for plant and animal communities* (partial, see also Vegetation and Wildlife, Aquatic): Considering the bottomlands targeted for treatment, only the upper quarter of the drainages meet the land health standard. On a landscape basis, the project vicinity meets the land health for most terrestrial vertebrates, although the depauperate nature of herbaceous understories certainly limits the potential abundance of nongame birds and mammals that inhabit these bottomlands. Implementing the proposed action would help restore the lower portion of these drainages to a condition that better serves the land health standards (i.e., improved composition and density of herbaceous ground cover, enhanced forage and cover capacity for game and nongame animals). The no-action alternative would maintain current land health conditions. However, it is inevitable that this acreage would become involved with a wildfire event in the future, probably with far less attention paid to its reclamation and restoration.

**OTHER NON-CRITICAL ELEMENTS:** For the following elements, only those brought forward for analysis will be addressed further.

| Non-Critical Element | NA or Not Present | Applicable or Present, No Impact | Applicable & Present and Brought Forward for Analysis |
|---|---|---|---|
| Access and Transportation | | | X |
| Cadastral Survey | X | | |
| Fire Management | | | X |
| Forest Management | | | X |
| Geology and Minerals | X | | |
| Hydrology/Water Rights | X | | |
| Law Enforcement | | X | |
| Paleontology | X | X | |
| Rangeland Management | | | X |
| Realty Authorizations | | X | |
| Recreation | | | X |
| Socio-Economics | | X | |
| Visual Resources | | | X |
| Wild Horses | | | X |

## ACCESS AND TRANSPORTATION

*Affected Environment*: BLM road 1101 is the most proximate road to the proposed prescribed fire. No other BLM or county roads are within the project area.

*Environmental Consequences of the Proposed Action:* Smoke may drift onto road decreasing visibility.

*Environmental Consequences of the No Action Alternative:* None.

*Mitigation*: Place signage along BLM road 1101 identifying that a prescribed fire is in progress.

## FIRE MANAGEMENT

*Affected Environment*: The proposed action is within the B6-Yellow Creek fire management polygon. "B" polygons are areas where wildland fire is not desired (wickiups & industrial interfaces). The B6 polygon has experienced 260 wildland fire starts since 1994 with 780 acres consumed within that time frame. The target area is a Basin Big Sagebrush/grass vegetation stratum which is classified as a fire regime II (vegetation strata that experiences frequent fire return intervals that remove > 75% of the vegetation). The target area has missed approximately 2-3 fire return intervals, and is rated as a condition class III due to unnatural fuel loading and departure from fire frequency. This trend is indicative of the entire fire management polygon with abnormal fuel loading in the sage and mountain shrub vegetation communities and lack of fire effects in the pinyon/juniper communities resulting in a overall lack of varying vegetation successional stages. The cumulative Fire Regime and Condition Class (FRCC) assessment of the fire management polygon is in a fire regime IV and a condition class III for the reasons stated above. In summary, the polygon is at risk for a large catastrophic wildland fire event which could threaten industrial interface, cultural resources and natural ecosystem functions.

*Environmental Consequences of the Proposed Action:* The proposed action will greatly reduce the fuel loading on 300 acres of Basin Big Sagebrush by introducing fire into a community that has evolved with fire and has missed approximately 2-3 fire return intervals. The proposed action will also meet the objectives of the White River Resource Area Fire Management Plan by conducting prescribed burns to "sagebrush dominated drainages to break up the continuous fuels connecting large stands of pinyon/juniper to limit large scale involvement of the PJ type." The proposed action will aid in introducing fire on a landscape level that more closely matches the historic range of natural variability with fire playing a large role in vegetation maintenance on a landscape level.

*Environmental Consequences of the No Action Alternative:* The vegetation type targeted for treatment is in essentially a stagnant state due, in part, to the lack of fire effects. The vegetation to be treated does not meet or marginally meets BLM land health standards due to low

understory productivity and diversity resulting from the dense canopy cover of sagebrush. Not implementing the proposed action will result in a continued management of vegetation not or marginally meeting land health standards in a stagnated state with no opportunity to improve vegetation quality and an increased potential to further degrade from land health standards. Also, the threat of large unnatural catastrophic wildland fire will continue which could result in large scale landscape loss or degradation of ecosystem components.

*Mitigation*: None

**FOREST MANAGEMENT**

*Affected Environment*: The adjacent pinyon/juniper woodlands would be classified as Pinyon/Juniper Rockland as described in the, *Phyto-Edaphic Classification of the Piceance Basin, 1978*. This woodland is made up of Pinyon and Utah juniper with sparse understory of shrubs and grasses. This woodland type does produce woodland products in the form of fence posts and firewood. Given the rough terrain sparse distribution of trees and absence of understory this site is not prone to stand replacing wildfires.

*Environmental Consequences of the Proposed Action:* The sparse nature of these woodlands would prevent any strong runs of fire through the woodlands. A few trees adjacent to the sagebrush bottoms are expected to be burned by the fire. The loss of these trees does not represent any loss of forest base.

*Environmental Consequences of the No Action Alternative:* There would be no impacts.

*Mitigation*: None

**RANGELAND MANAGEMENT**

*Affected Environment*: The project area is used by Burke Brother's cattle operation in the spring from May 1through early June and again in the fall from about 10/15 through the end of December. Livestock typically would access the treatment unit from Yellow Creek proper

*Environmental Consequences of the Proposed Action:* The proposed treatment will radically alter plant composition on the site from its present sagebrush/cheatgrass dominance to a more productive, herbaceous dominated cover. Because wild horse numbers at present are in excess of capacity on both the Barcus-Pinto Unit and the Yellow Creek allotment as a whole, their uncontrolled use of the treatment area could jeopardize the stated revegetation goals of this project.

*Environmental Consequences of the No Action Alternative:* There will be no change from the present situation.

*Mitigation*: None

## RECREATION

*Affected Environment*: The proposed action occurs within the White River Extensive Recreation Management Area (ERMA). BLM custodially manages the ERMA to provide for unstructured recreation activities such as hunting, dispersed camping, hiking, horseback riding, wildlife viewing and off-highway vehicle use.

The project area has been delineated a Recreation Opportunity Spectrum (ROS) class of Semi-Primitive Motorized (SPM). SPM recreation setting is typically characterized by a natural appearing environment with few administrative controls, low interaction between users but evidence of other users may be present. SPM recreation experience is characterized by a high probability of isolation from the sights and sounds of humans that offers an environment that offers challenge and risk.

*Environmental Consequences of the Proposed Action:* If action coincides with hunting seasons (September through November) it may disrupt the experience sought by those recreationists.

*Environmental Consequences of the No Action Alternative:* None.

*Mitigation*: None.

## VISUAL RESOURCE

*Affected Environment*: The proposed action is within a VRM class III area. The objective of this class is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape

*Environmental Consequences of the Proposed Action:* Fire scars are evident in the surrounding landscape; therefore, any changes in color, line, form or texture will be seen as a natural element of the landscape to the casual observer, and VRM III objectives will be met. Furthermore, any disturbed vegetation will return making the action virtually unnoticeable within a period of a few years.

*Environmental Consequences of the No Action Alternative:* No impact on visual resources.

*Mitigation*: None.

## WILD HORSES

*Affected Environment*: The proposed action is in the Barcus-Yellow Creek vicinity of the Piceance East Douglas wild horse herd management area (HMA). Wild horses inhabit this vicinity of the HMA on a yearlong basis watering at Yellow Creek and Barcus Creek.

Wild horses in this herd are managed in a numerical range with gathers occurring when herd size exceeds the high end of herd management range. The next gather for this herd is scheduled for the fall of 2006.

Yearlong wild horse use; in conjunction with, current livestock management practices has resulted in notable cheatgrass invasions on surrounding country in the Barcus and Yellow Creek vicinity.

*Environmental Consequences of the Proposed Action:* The temporary fence constructed to block livestock entry would not surround the seeding and so would not block wild horse use on the new seeding. The number of acres proposed for seeding eliminates the possibility of fence construction around the entire seeding. Herd size at the time of this project is implemented could affect the success of this project. Delay of the project to coincide with the fall 2006 gather would decrease impacts on the seeding since fewer horses would be present to graze the new seeding.

Wild horses would benefit from the successful completion of the proposed project with an increase in desirable forage.

Wild horses would be negatively impacted by this project if the initial seeding and future efforts at reseeding the area, resulted in invasions of cheatgrass rather than palatable, desirable forage plant species.

*Environmental Consequences of the No Action Alternative:* Wild horses would continue to rely on the plant resources currently available in the proposed project area. Horses would not benefit from increased forage availability; but neither would the animals be negatively impacted should cheatgrass invade this treatment area at a later date.

*Mitigation*: Analyze the value of reducing wild horse numbers in the Yellow Creek portion of the HMA during the fall, 2006 gather to decrease initial grazing pressure on the new seeding. Reduce horses in this portion of the HMA during the 2006 gather if determined through the analysis to be an effective means to reduce grazing pressure on the new seeding.

**CUMULATIVE IMPACTS SUMMARY:** The proposed action is specifically intended to increase the availability, variety, and nutritional quality of herbaceous forage for use by deer in the spring months. This is an integral factor identified in the American Soda Mitigation Plan which was drafted to offset onsite impacts to wintering mule deer populations by the development of the American Soda mining panel. Incremental gains in the nutritional status of deer at this time of year would manifest itself in increased fawn survival and recruitment, thereby helping to maintain population characteristics necessary to achieve Colorado Division of

Wildlife's big game herd objectives and there-by mitigate the impacts to wintering mule deer associated with the development of the American Soda mining panel.

BLM has, and will continue to treat areas of heavy fuels throughout the White River Resource Area in accordance with the White River Fire Management Plan (BLM 1999). Treating various areas of heavy fuels will reduce the potential for catastrophic wildfire by transforming a running crown fire back to the surface, where suppression efforts can be more effective. Once the proposed action has been implemented, BLM can more safely treat other areas in the vicinity that have heavy or unnatural fuels buildup, using prescribed fire or fire use. This would further reduce the potential of wildfire damage to industrial facilities in the area and continue to allow fire to assume it natural role within the ecosystem.

By implementing the proposed action and other hazardous fuel reduction actions BLM will achieve a mosaic landscape with varying seral vegetation classes which result in a more fire resistant landscape and healthier rangelands. Effects are expected to be similar to effects from similar projects implemented in the past such as Big Duck Creek CO-WRFO-00-048-EA and East Douglas Creek CO-WRFO-96-043-EA. This coupled with the design criteria and the small overall percentage of public land being treated result in no significant cumulative impacts.

**REFEENCES:**


1. Wildlife Mitigation Plan Yankee Gulch Sodium Minerals Project. Steigers Corporation et. al. 1999. Prepared for American Soda, L.L.P. Glenwood Springs, Colorado.

2. Hann, Wendel, Havlina, Doug, Shlisky, Ayn, et al. 2003. Interagency and The Nature Conservancy fire regime condition class website .USDA Forest Service, US Department of the Interior, The Nature Conservancy, and Systems for Environmental Management [frcc.gov].

3. USDI Bureau of Land Management, Wyoming State Office, Division of Lands and Renewable Resources (1991) Simple Approach Smoke Estimation Model (SASEM) – Version 3.50.

4. Bureau of Land Management (BLM) White River Field Office. (1999). White River Fire Management Plan: Environmental Assessment Record Number CO-017-WR-99-99-EA. Available upon request from the White River Field Office, 73544 Hwy 64, Meeker, CO. Phone 970-878-3800. Email wrfo_webmail@co.blm.gov.

5. Bureau of Land Management (BLM) White River Resource Area, Colorado. (1997). White River Record of Decision and Approved Resource Management Plan. Available on the BLM Colorado Web site: http://www.co.blm.gov/nepa/rmpdocs/wrfodocs/wrformp.htm


**PERSONS / AGENCIES CONSULTED:**
American Soda, L.L.P. Glenwood Springs, Colorado
Colorado Division of Wildlife, Meeker, Colorado

**INTERDISCIPLINARY REVIEW:**

| Name | Title | Area of Responsibility |
|---|---|---|
| Ken Holsinger | NRS | Air Quality |
| Tamara Meagley | MRS | Areas of Critical Environmental Concern |
| Tamara Meagley | NRS | Threatened and Endangered Plant Species |
| Michael SElle | Archaeologist | Cultural Resources<br>Paleontological Resources |
| Mark Hafkenschiel | Rangeland Management Specialist | Invasive, Non-Native Species |
| Ed Hollowed | Wildlife Biologist | Migratory Birds |
| Ed Hollowed | Wildlife Biologist | Threatened, Endangered and Sensitive Animal Species, Wildlife |
| Ken Holsinger | NRS | Wastes, Hazardous or Solid |
| Carol Hollowed | P &EC | Water Quality, Surface and Ground<br>Hydrology and Water Rights |
| Ed Hollowed | Wildlife Biologist | Wetlands and Riparian Zones |
| Chris Ham | ORP | Wilderness |
| Mark Hafkenschiel | Rangeland Management Specialist | Soils |
| Mark Hafkenschiel | Rangeland Management Specialist | Vegetation |
| Ed Hollowed | Wildlife Biologist | Wildlife Terrestrial and Aquatic |
| Chris Ham | ORP | Access and Transportation |
| Ken Holsinger | NRS | Fire Management |
| Robert Fowler | Forester | Forest Management |
| Paul Daggett | Mining Engineer | Geology and Minerals |
| Mark Hafkenschiel | Rangeland Management Specialist | Rangeland Management |
| Penny Brown | Realty Specialist | Realty Authorizations |
| Chris Ham | ORP | Recreation |
| Chris Ham | ORP | Visual Resources |
| Valerie Dobrich | NRS | Wild Horses |

# Finding of No Significant Impact/Decision Record (FONSI/DR)

# CO-110-2004-157-EA

**FINDING OF NO SIGNIFICANT IMPACT (FONSI)/RATIONALE:** The environmental assessment and analyzing the environmental effects of the proposed action have been reviewed. The approved mitigation measures (listed below) result in a Finding of No Significant Impact on the human environment. Therefore, an environmental impact statement is not necessary to further analyze the environmental effects of the proposed action.

This determination is based on the following:

| Factors Considered | Potential Impact | Reasons the Impact is not Adversely Significant |
|---|---|---|
| Public Health and Safety | Firefighter and public safety will be improved on approximately 500 acres due to the reduced risk of destructive wildland fire. | The proposed action would not significantly affect public health and safety but would reduce current and expected risks. |
| Cultural Resources | | Non-significant because no sites will be impacted. |
| Sensitive Species | There are no plants or animals known to inhabit or derive important benefit from the project area that are listed, proposed, or petitioned under the Endangered Species Act. | There are no plants or animals known to inhabit or derive important benefit from the project area. |
| Wildlife | The proposed action is specifically intended to increase the availability, variety, and nutritional quality of herbaceous forage for use by deer in the spring months. | The proposed action will have a positive impact on wintering mule deer. |
| Water Quality and Soils | With the state set water quality criteria, any improvement to watershed conditions (i.e., reseeding to improve vegetation cover) would be beneficial to the watershed by helping to maintain the necessary water quality the state has established. The | Water quality and soil standards would be enhanced due to improved vegetation cover and quality, which will decrease off site sedimentation. |

| Factors Considered | Potential Impact | Reasons the Impact is not Adversely Significant |
|---|---|---|
| | proposed treatment with applied mitigation would enhance soils by increasing vegetation cover and production, thereby increasing our capability to meet the soil standard in the future. | |
| Visual Resources | Fire scars are evident in the surrounding landscape; therefore, any changes in color, line, form or texture will be seen as a natural element of the landscape to the casual observer | VRM III objectives will be met. |
| Wild Horses | Wild horses would benefit from the successful completion of the proposed project with an increase of desirable forage. | Wild horses will receive a net benefit from implementing the proposed action. |
| Air Quality | Smoke from the prescribed burn may slightly diminish air quality for a short time period when burning operations are being conducted. This impact will be localized and not effect people or other resources. | The proposed action will be conducted under atmospheric conditions that will promote air pollutant dispersion and will not adversely affect people and other resources. |

**DECISION/RATIONALE**: It is my decision to approve implementation of the Yahoo Prescribed Fire project as described in the proposed action. This will result in increased forage availability, variety, and nutritional quality for use by deer in the late winter and spring months. Additional results will be a reduced fuel loading and risk of large-scale wildfire event that could threaten cultural resources and industrial interface, and cause significant long-term ecosystem degradation. The proposed action will also result in satisfying mitigation measures set forth in the American Soda Wildlife Mitigation Plan. This action is in compliance with decisions in the White River ROD/RMP, the White River Fire Management Plan and environmental impacts are expected to be minimal.

**MITIGATION MEASURES**: Apply the following mitigation in addition to the mitigation outlined in the proposed action:

1. The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are

uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:

- whether the materials appear eligible for the National Register of Historic Places
- the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary)
- a timeframe for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

2. Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the AO, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.

3. Analyze the value of reducing wild horse numbers in the Yellow Creek portion of the HMA during the fall, 2006 gather to decrease initial grazing pressure on the new seeding. Reduce horses in this portion of the HMA during the 2006 gather if determined through the analysis to be an effective means to reduce grazing pressure on the new seeding.

**COMPLIANCE/MONITORING**: See proposed action. Compliance for stipulation #5 would be performed by the wild horse specialist.

**NAME OF PREPARER**: Ken Holsinger

**NAME OF ENVIRONMENTAL COORDINATOR**: Caroline P. Hollowed 10/19/04

**SIGNATURE OF AUTHORIZED OFFICIAL**: Kent E. Walter
Field Manager

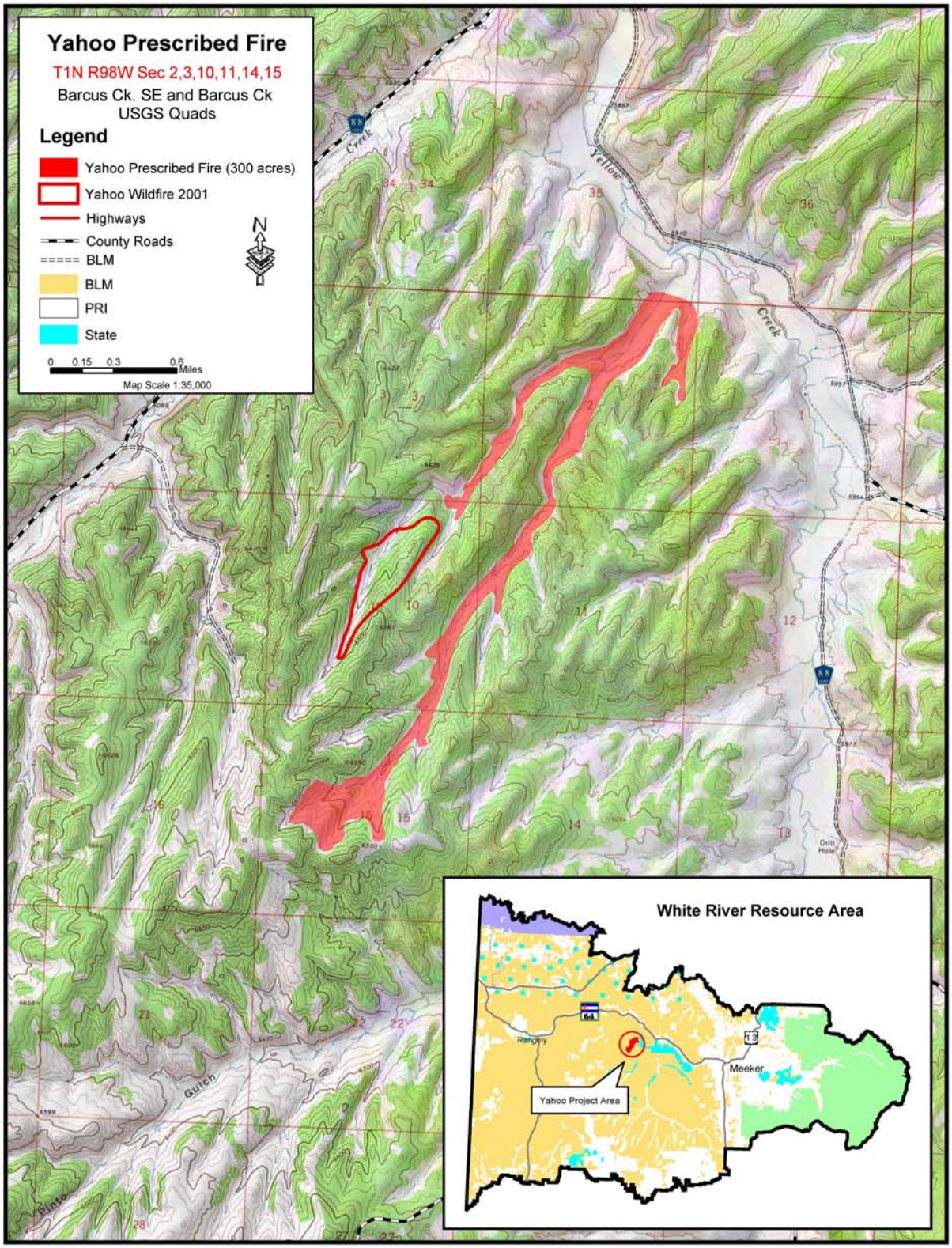
**DATE SIGNED**: 10/20/04

**ATTACHMENTS**:

Map showing project area and general location within the resource area.



CO-110-2004-157-EA 24


Yahoo Prescribed Fire
T1N R98W Sec 2,3,10,11,14,15
Barcus Ck. SE and Barcus Ck
USGS Quads
Legend
Yahoo Prescribed Fire (300 acres)
Yahoo Wildfire 2001
Highways
County Roads
BLM
BLM
PRI
State
0 0.15 0.3 0.6 Miles
Map Scale 1:35,000
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White River Resource Area
Rangely
Meeker
Yahoo Project Area
Yellow Creek
Gulch